

MECHANIC STUDY GUIDE

Electrical Systems

Heavy Duty Trucks

Listed below are a number of items and subjects which make up the mechanic certification tests identified above. An individual's ability to pass the certification test will depend upon the amount of knowledge the person has concerning these items:

System Diagnosis - 22%

- Lamp circuits
- High & low beam headlamp questions
- Dash lights
- Alternator circuits
- Windshield wiper circuit
- Oil pressure sending unit
- Circuit diagnosis
- Horn Circuits

General - 10%

- Batteries
- Fusible links
- Hydrometer use
- Jump starting
- Fuse box replacement

Vehicle Lighting - 18%

- Turn signal circuit
- Tail lamp circuit
- Head lamp circuit
- Dash light circuit
- Clearance lights

Starting Systems - 24%

- Battery hook-ups
- Starter circuit resistance
- Specific gravity readings
- Solenoid problems
- Starter draw test
- Starter drives
- Starter no-load test

Charging Systems - 12%

- Low or unsteady alternator output
- Alternator Circuitry
- Overcharged battery problem
- Alternator amperage limit

Test Methods & Equipment - 14%

- Voltmeter use
- Ohmmeter use
- Circuit testing
- Verifying a circuit drain
- Alternator rotor tests
- Ammeter use

SAMPLE QUESTION:

The alternator output current is 0 amps. What could cause this condition?

- A. An open diode.
- B. A grounded rectifier bridge.
- C. An open rotor winding.
- D. All of the above

ANSWER: C